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(54) IMAGE RECOGNITION BASED MEASURING  
 METHOD AND RECORDING MEDIUM

(57) Abstract:

**PROBLEM TO BE SOLVED:** To reduce the load of pattern matching processing and to shorten processing time by performing pattern matching of an object only while excluding its background.

**SOLUTION:** A reference image for pattern matching equal with or similar to the object of a measuring object input image and the mean value of density distribution of its background is registered. A source image of the object is displayed, and the object and its background are separated. A search frame is set while exclud-

ing its background part from the pattern image, and scanning is performed with the pattern image in order to detect the object inside the search frame. In this process, a mutually correlative coefficient is calculated between the object part of the pattern image and a positionally corresponding input image. Besides, a self-correlative coefficient of the input image corresponding to the object area of the pattern image is calculated. Then, a normalization correlative coefficient is found between the object part of the pattern image and the corresponding input image. The largest value of the normalization correlative coefficient and the position of the pattern image are selected. The position of the pattern image becomes a pattern detecting position.

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